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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Donald R. Martin

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1131

7590

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EXAMINER

FISHMAN, MARINA

ART UNIT

PAPER NUMBER

2832

DATE MAILED: 03/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/685,723	MARTIN, DONALD R.	
	Examiner	Art Unit	
	Marina Fishman	2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01/24/05.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-6 and 8-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6 and 8-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

General Status

1. This is a Final Action on the Merits. Claims 1-22 are pending in the case.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1, 3 – 6, 8 - 22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There are no support for the recitation “dielectric encapsulation having a one-piece molded material” (Claim 1) and the recitation “**bands** at end portions of the vacuum chamber ceramic housing are substantially free of the semi-conductive material” (Claims 1, 10 and 16).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3 – 6, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker [US 5,597,992] in view of Cherry [US 4,002,867].

Walker discloses a vacuum interrupter [14] comprising:

- dielectric encapsulation [16, 54] having a one-piece molded material [Column 3, lines 62,63, Figure 1] and configured substantially encapsulate the vacuum interrupter
- the vacuum chamber comprising: a ceramic housing [24; Column 3, lines 64];
- first and second end caps [26, 28] sealing the housing,
- a floating shield [46] within the housing;
- an exposed ring integral with the housing and coupled with the floating shield [Figure 1];
- first and second voltage screens [50, 52] connected to the first and second end caps.

Walker discloses the instant claimed invention except for a semi-conductive material in contact with the exposed ring and disposed on a central portion of the vacuum chamber ceramic housing such that bands end portion of the vacuum chamber ceramic housing are substantially free of the semi-conductive material, the voltage screen overlapping a portion of the semi-conductive material. Cherry [Figures 1-8] discloses a vacuum interrupter with a floating shield [22] with an exposed ring [23], two end voltage screens [6, 15], and a semi-conductive layer on the outside of the insulating envelop [abstract, lines 8-12]. It would have been obvious to one of ordinary skill in the

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art at the time the invention was made to have an exposed ring in Walker, connected to the outside semi-conductive coating, as suggested by Cherry, so that the floating shield voltage can be quickly discharged [Cherry column 3, lines 1-4].

Regarding claims 4, 5 Walker in view of Cherry discloses the claimed invention except for the material for the voltage screen being perforated metal sheet or metallic mesh. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the voltage screen of perforated metal screen or metallic mesh, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

5. Claims 10 - 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker [US 5,597,992] in view of Cherry [US 4,002,867] as applied to claims 1, 3 – 6, 8 and 9 above, and further in view of Bohme et al. [US 4,618,749].

Walker and Cherry substantially satisfies the limitations of claims 10 and 16, however, Walker and Cherry do not disclose the first and second voltage screens disposed within shielded encapsulation. Bohme et al. [Figure 1] discloses voltage screens [control electrodes 19, 22] disposed within shielded encapsulation. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide voltage screens within shielded encapsulation as suggested by Bohme et al., in order to have better waste heat conduction [Bohme et al., column 3, line 35].

Regarding claims 11, 12 and 17 Walker in view of Cherry discloses the claimed invention except for the material for the voltage screen being perforated metal sheet or

metallic mesh. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the voltage screen of perforated metal screen or metallic mesh, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Response to Arguments

6. Applicant's arguments with respect to claims 1, 3 – 6, 8 – 22 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

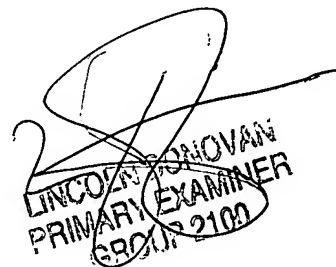
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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marina Fishman whose telephone number is 571-272-1991. The examiner can normally be reached on 7-5 M-T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marina Fishman
February 22, 2005


LINCOLN DONOVAN
PRIMARY EXAMINER
GROUP 2100